

HEMOCOMPATIBLE COATINGS ON HYDROPHOBIC POROUS POLYMERS

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5

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ABSTRACT OF THE DISCLOSURE

The present invention relates to coating a porous, hydrophobic polymer with a hemocompatible coating and to the materials produced thereby. One embodiment 10 of the present invention relates to the coating of expanded poly(tetrafluoroethylene) with one or more complexes of heparin, typically containing heparin in combination with a hydrophobic counter ion. The hemocompatible coating is dissolved in a mixture of solvents in which a first solvent wets the polymer to be coated and the second solvent enhances the solubility of the hemocompatible 15 coating material in the solvent mixture. Typical first solvents wetting hydrophobic polymers include non-polar such as hydrochlorofluorocarbons. Typical second solvents include polar solvents such as organic alcohols and ketones. Azeotropic mixtures of the second solvent in the first solvent are used in some embodiments of the present invention although second solvents may be employed in a range of 20 concentration ranges from less than 0.1% up to saturation. An example is provided of coating heparin complex onto an endoluminal stent, typically consisting of coating DURAFL0 onto an ePTFE stent covering material.